

(43) International Publication Date  
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number  
WO 2005/092068 A2

(51) International Patent Classification: Not classified

Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US).

(21) International Application Number:

PCT/US2005/009797

(74) Agent: WILSON, Whitney, N.; Covington &amp; Burling, 1201 Pennsylvania Avenue, N.W., Washington, DC 20004-2401 (US).

(22) International Filing Date: 23 March 2005 (23.03.2005)

(25) Filing Language:

English

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language:

English

(30) Priority Data:

60/556,000 24 March 2004 (24.03.2004) US

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

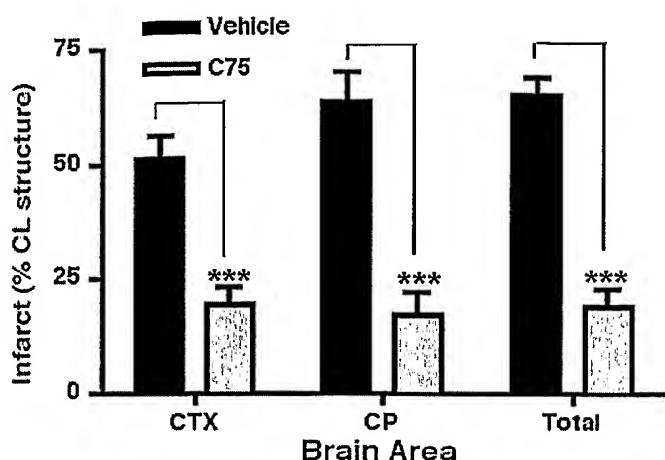
(75) Inventors/Applicants (for US only): MCCULLOUGH, Louise, D. [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). LI, Hong [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). MCFADDEN, Jill [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building, Johns Hopkins University School of Medicine, 725 North Wolfe Street, Baltimore, MD 21205 (US). RONNETT, Gabriele, V. [US/US]; Departement of Neuroscience, 1006B Preclinical Teaching Building,

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL METHOD OF NEUROPROTECTION BY PHARMACOLOGICAL INHIBITION OF AMP-ACTIVATED PROTEIN KINASE



**(57) Abstract:** A method of neuroprotection which comprises administration of an AMPK inhibitor to a patient who is experiencing or has experienced a stroke, the compound being an AMPK inhibitor. Treatments with these agents significantly reduce the size of infarcts, and therefore minimize the loss of brain tissue and neurons. Thus, function can be preserved after stroke or ischemic injury in the brain. Similarly, neuronal loss can be minimized in degenerative diseases that cause neuronal compromise by perturbing energy utilization and availability in neurons.